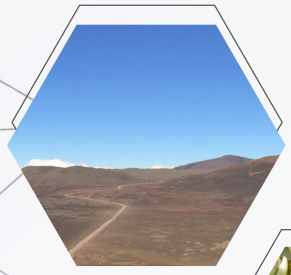
BOOK OF ABSTRACTS
POSTERS

Island BIOLOGY



La Réunion
8-13 JULY

2019

Université de la Réunion
Campus du Moufia

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Quantify invasion levels by alien plant species in La Réunion Island

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The largest area of intact vegetation in the Mascarene Archipelago is found on La Réunion Island. In 2007, a national park has been established where most protected habitats and rare species are targeted by some conservation actions. Invasions by exotic plants are the main threat to the biodiversity within this park and several management programs aim at controlling the main invasive alien plant species. For decades, inventories of alien species have been carrying out at La Réunion, constituting a large amount of data but these data never been synthetized, assembled and exploited to assess the level of invasion. Here, data from different organizations were combined to quantify the overall level of invasion by exotic plants island-wide. These data were extrapolated to grid cells of 250 x 250 m and categorized into four invasion categories ranging from intact to heavily invaded areas. Here, we present the spatial pattern of invasion on La Réunion Island. Only 12% of the island remain intact while 60% is moderately to heavily invaded. Inside the national park, more than 55% is lightly invaded or intact. We then discuss the invasion rate according to several factors: altitude, habitats, geomorphology, land cover and the presence of pathways or streams.

Keywords: La Réunion Island, invasive alien plants, mapping, spatial ecology, determinants of plant invasions

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